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DATE:	February 12. 2001	PAGES: 3 (Including cover sheet)

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COMMENTS:

As requested during our telephone conference earlier today, I have re-numbered claims—19-23 as 27-31 and deleted the underlining and enclose copies of same.

Timothy Sinnott, Registration No. 31,083.

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A method for cleaning one or more membranes normally immersed in water containing solids and used to produce a filtered permeate comprising: performing at least once a week the steps of:

- (a) stopping permeation;
- (b) flowing a selected concentration of a chemical cleaner through the membranes in a direction opposite to the direction in which permeate normally passes through the membranes to provide chemical cleaner in an area in or adjacent the membranes for a selected duration; and,
- (c) resuming permeation, wherein
- (d) the selected concentration of chemical cleaner is between about 20 mg/L and about 200 mg/L of chemical cleaner expressed as an equivalent concentration of NaOCI in cleaning efficacy;
- (e) the selected duration is between about 10 minutes and about 100 minutes; and,
- (f) the sum of the products of the concentrations of the chemical cleaner expressed as an equivalent concentration of NaOCI in cleaning efficacy and the durations [of all cleaning events in] of all of the steps of flowing a selected concentration of a chemical cleaner through the membranes in a direction opposite to the direction in which permeate normally passes through the membranes to provide chemical cleaner in an area in or adjacent the membranes for a selected duration in a week is between 2,000 minutes•mg/L and 30,000 minutes•mg/L and maintains an acceptable permeability or gradual decline in permeability over extended periods of time.
- 28. The method of claim 27 wherein the sum of the products of the concentrations of the chemical cleaner expressed as an equivalent concentration of NaOCI in cleaning efficacy and the durations of all of the steps of flowing a selected

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concentration of a chemical cleaner through the membranes in a direction opposite to the direction in which permeate normally passes through the membranes to provide chemical cleaner in an area in or adjacent the membranes for a selected duration in a week is between 2,000 minutes•mg/L and 20,000 minutes•mg/L.

- 29. The method of claim 27 wherein the permeate is intended for drinking water and the sum of the products of the concentrations of the chemical cleaner expressed as an equivalent concentration of NaOCI in cleaning efficacy and the durations of all of the steps of flowing a selected concentration of a chemical cleaner through the membranes in a direction opposite to the direction in which permeate normally passes through the membranes to provide chemical cleaner in an area in or adjacent the membranes for a selected duration in a week is between 5,000 minutes•mg/L and 10,000 minutes•mg/L.
- 30. The method of claim 27 wherein the water containing solids is a wastewater and the sum of the products of the concentrations of the chemical cleaner expressed as an equivalent concentration of NaOCI in cleaning efficacy and the durations of all of the steps of flowing a selected concentration of a chemical cleaner through the membranes in a direction opposite to the direction in which permeate normally passes through the membranes to provide chemical cleaner in an area in or adjacent the membranes for a selected duration in a week is between 10,000 minutes•mg/L and 30,000 minutes•mg/L.

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- 到 The method of any of claims 都 through 39 wherein
- (a) the membranes remain immersed in the water containing solids while the chemical cleaner flows through the membranes;
- (b) the outside of the membranes is in fluid communication with the water containing solids; and,
- (c) the membranes are not agitated while the chemical cleaner is flowed through the membranes.

